

BOOK REVIEW

Intermountain Flora: Vascular Plants of the Intermountain West, U.S.A.: Volume Three, Part A: Subclass Rosidae (except Fabales), by Arthur Cronquist, Noel H. Holmgren and Patricia K. Holmgren. 1997. 446 pp. ISBN 0-89327-375-9 \$75 (hardback). The New York Botanical Garden, Bronx, NY.

This is the penultimate work in a seven volume *magnus opus* for the plants of the intermountain west, an area of the western United States which includes all of Utah, most of Nevada, and parts of Arizona, California, Idaho, and Oregon. Twenty-five years in the making, its completion has been long awaited by ecologists and the botanical community. This volume treats all of the Rosidae with the exception of the Fabales (published separately as part B, and authored by Rupert Barneby), and for the first time, provides a synthetic treatment of some of the most complex families in the region.

The intermountain region has been one of the last frontiers for botanical exploration in North America. It is an area where scores of new species have been discovered in the past two decades and frequent range extensions are recorded. The completion of the *Intermountain Flora* will stimulate systematic research in this highly dissected, remote, and rapidly changing landscape.

For the first time in the publication of the series, there is a byline attributing authorship for each family—a convention which is enormously helpful in assigning responsibility for the taxonomic treatments. Arthur Cronquist, the first author of this volume, was working actively on treatments when he died in 1992. Much of his work was in draft form and in need of considerable editing; my sense of the situation is that Noel Holmgren and Patricia Holmgren did not add their names as authors unless they made extensive revisions. Of the 40 families treated in the work, authorship (indicated in parentheses) is fairly evenly divided and treatments of some problematic groups are especially welcome: Apiaceae (AC), Rosaceae (NHH), Onagraceae (AC, NHH, PKH), and Grossulariaceae (PKH).

While this work is important in a number of ways, its chief

significance lies in the fact that few regional floras rival the *Intermountain Flora* in scope or detail. Previous volumes have been used as a standard against which other floristic works are judged, and the present volume is no exception. Following the format used in the first five volumes, Noel Holmgren and Patricia Holmgren made a welcome addition to the standard format by treating commonly cultivated horticultural taxa in the keys. As with the standard format, all native and naturalized taxa are accompanied by lengthy morphological descriptions, illustrations, and full taxonomic and nomenclatural synonymy which includes bibliographic citations and type specimen information for all basionyms. Descriptions of habitat and distribution are often accompanied by a discussion of morphological variation by geographic region and the ensuing problems with taxonomic circumscription. References to dissenting points of view are usually provided, and the authors spare no effort in offering lengthy discussions about problematic species and species complexes. The text of the *Intermountain Flora* is rich with personal field observations providing details found in no other reference. Decades of experience are distilled in the volumes and the treatments show a zealous attention to detail. Users of the flora will be delighted by the clearly written keys, lively discussions, and lavish illustrations.

While anyone working with the treatments might disagree with some of the circumscriptions of taxa in the flora, no one can fault either the quality of the work and the precision of the keys, or fail to enjoy the lively discussions. Lavish illustrations make the work enormously useful, enhancing its value as a scientific document and greatly enhancing its popularity with the general public. The appreciation by the authors is shown in their dedication to artists Jeanne R. Janish, Bobbi Angell, and Robin Jess, "whose skillful drawings give vivid life to the text."

My only criticisms of this volume are the omission of an introduction providing background information on the flora, the absence of a bibliography of previous volumes, and no mention of the final volume (number two), which will include a key to families. During my fifteen years as the curator of the Intermountain Herbarium, the question I was asked most frequently was "When will the next volume of the Intermountain Flora be published?" Now, the question will be "When will a synoptic volume be published?" Knowing that the Holmgrens will complete this work

in the near future, we in the systematic community owe them our gratitude and hearty congratulations.

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